

Certificate of Analysis



Customer Information

Client: Steding and Sons Mercantile
Attention: (737) 895-2303
Address: 1501 Panther Loop #7A
 Pflugerville, TX 78660

Testing Facility

Lab: Cora Science, LLC
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 Austin, Texas 78757
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Sample Image(s)



Sample Information

Name: SLL0005
Lot Number: SLL0005-BRM19
Description: Liquid botanical extract
Condition: Good
Job ID: ISO01611
Sample ID: I03252
Received: 02JAN2024
Completed: 06JAN2024
Issued: 09JAN2024

Test Results

Kavalactones (UHPLC-DAD)

Method Code: T104

Tested: 02JAN2024 | 2251

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Kavain	Report Results	4.77	mg/mL	0.09	N/A
Dihydrokavain	Report Results	3.99	mg/mL	0.09	N/A
Methysticin	Report Results	1.75	mg/mL	0.09	N/A
Dihydromethysticin	Report Results	1.71	mg/mL	0.09	N/A
Yangonin	Report Results	1.98	mg/mL	0.09	N/A
Desmethoxyyangonin	Report Results	1.74	mg/mL	0.09	N/A
Flavokawain A	Report Results	0.231	mg/mL	0.09	N/A
Flavokawain B	Report Results	0.446	mg/mL	0.09	N/A
Flavokawain C	Report Results	<LOQ	mg/mL	0.09	N/A
Total Kavalactones	Report Results	15.9	mg/mL	0.09	N/A

Kavalactones (UHPLC-DAD)

Method Code: T104

Tested: 02JAN2024 | 2251

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Kavain	Report Results	0.467	w/w%	0.009	N/A
Dihydrokavain	Report Results	0.390	w/w%	0.009	N/A
Methysticin	Report Results	0.171	w/w%	0.009	N/A
Dihydromethysticin	Report Results	0.167	w/w%	0.009	N/A
Yangonin	Report Results	0.193	w/w%	0.009	N/A
Desmethoxyyangonin	Report Results	0.170	w/w%	0.009	N/A
Flavokawain A	Report Results	0.023	w/w%	0.009	N/A
Flavokawain B	Report Results	0.044	w/w%	0.009	N/A
Flavokawain C	Report Results	<LOQ	w/w%	0.009	N/A
Total Kavalactones	Report Results	1.56	w/w%	0.009	N/A

Residual Solvents (GC-MS)

Method Code: T201

Tested: 06JAN2024 | 0117

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
1,1-Dichloroethene	NMT 8	<LOQ	ug/g	0.40	PASS
1,1,1-Trichloroethane	NMT 1500	<LOQ	ug/g	75.0	PASS
Tetrachloromethane	NMT 4	<LOQ	ug/g	0.20	PASS
Benzene	NMT 2	<LOQ	ug/g	0.10	PASS
1,2-Dichloroethane	NMT 5	<LOQ	ug/g	0.25	PASS
Methanol	NMT 3000	<LOQ	ug/g	150	PASS
Acetonitrile	NMT 410	<LOQ	ug/g	21	PASS
Dichloromethane	NMT 600	<LOQ	ug/g	30	PASS
1,2-Dichloroethene, (E)	NMT 1870	<LOQ	ug/g	94	PASS
1,2-Dichloroethene, (Z)	NMT 1870	<LOQ	ug/g	94	PASS
Tetrahydrofuran	NMT 720	<LOQ	ug/g	36	PASS
Cyclohexane	NMT 3880	<LOQ	ug/g	194	PASS
Methylcyclohexane	NMT 1180	<LOQ	ug/g	59	PASS
1,4-Dioxane	NMT 380	<LOQ	ug/g	19	PASS
Toluene	NMT 890	<LOQ	ug/g	45	PASS
Chlorobenzene	NMT 360	<LOQ	ug/g	18	PASS
Ethylbenzene	NMT 2170	<LOQ	ug/g	109	PASS
o/p-Xylene	NMT 2170	<LOQ	ug/g	109	PASS
m-Xylene	NMT 2170	<LOQ	ug/g	109	PASS
Isopropylbenzene	NMT 70	<LOQ	ug/g	3.5	PASS
Hexane	NMT 290	<LOQ	ug/g	15	PASS
Nitromethane	NMT 50	<LOQ	ug/g	2.5	PASS
Chloroform	NMT 60	<LOQ	ug/g	3.0	PASS
1,2-Dimethoxyethane	NMT 100	<LOQ	ug/g	5.0	PASS
Trichloroethene	NMT 80	<LOQ	ug/g	4.0	PASS
Pyridine	NMT 200	<LOQ	ug/g	10	PASS
2-Hexanone	NMT 50	<LOQ	ug/g	2.5	PASS
Tetralin	NMT 100	<LOQ	ug/g	5.0	PASS
Pentane	NMT 5000	<LOQ	ug/g	250	PASS
Ethanol	NMT 5000	<LOQ	ug/g	250	PASS
Diethyl Ether	NMT 5000	<LOQ	ug/g	250	PASS
Acetone	NMT 5000	<LOQ	ug/g	250	PASS
Ethyl Formate	NMT 5000	<LOQ	ug/g	250	PASS
Isopropanol	NMT 5000	<LOQ	ug/g	250	PASS
Methyl Acetate	NMT 5000	<LOQ	ug/g	250	PASS
Methyl tert-Butyl Ether	NMT 5000	<LOQ	ug/g	250	PASS
1-Propanol	NMT 5000	<LOQ	ug/g	250	PASS
2-Butanone	NMT 5000	<LOQ	ug/g	250	PASS
Ethyl Acetate	NMT 5000	<LOQ	ug/g	250	PASS
2-Butanol	NMT 5000	<LOQ	ug/g	250	PASS
2-Methyl-1-Propanol	NMT 5000	<LOQ	ug/g	250	PASS
Isopropyl Acetate	NMT 5000	<LOQ	ug/g	250	PASS
Heptane	NMT 5000	<LOQ	ug/g	250	PASS
1-Butanol	NMT 5000	<LOQ	ug/g	250	PASS
Propyl Acetate	NMT 5000	<LOQ	ug/g	250	PASS
4-Methyl-2-Pentanone	NMT 5000	<LOQ	ug/g	250	PASS
Isoamyl Alcohol	NMT 5000	<LOQ	ug/g	250	PASS
Isobutyl Acetate	NMT 5000	<LOQ	ug/g	250	PASS
1-Pentanol	NMT 5000	<LOQ	ug/g	250	PASS
Butyl Acetate	NMT 5000	<LOQ	ug/g	250	PASS
Dimethylsulfoxide	NMT 5000	<LOQ	ug/g	250	PASS
Anisole	NMT 5000	<LOQ	ug/g	250	PASS

Mitragyna Alkaloids (UHPLC-DAD)
Method Code: T102**Tested: 03JAN2024 | 0855**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Mitragynine	Report Results	0.178	w/w%	0.009	N/A
7-Hydroxymitragynine	Report Results	<LOQ	w/w%	0.002	N/A
Paynantheine	Report Results	0.036	w/w%	0.009	N/A
Speciogynine	Report Results	0.025	w/w%	0.009	N/A
Speciociliatine	Report Results	0.057	w/w%	0.009	N/A
Total Mitragyna Alkaloids	Report Results	0.296	w/w%	0.009	N/A

Mitragyna Alkaloids (UHPLC-DAD)

Method Code: T102

Tested: 03JAN2024 | 0855

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Mitragynine	Report Results	1.82	mg/mL	0.09	N/A
7-Hydroxymitragynine	Report Results	<LOQ	mg/mL	0.02	N/A
Paynantheine	Report Results	0.366	mg/mL	0.09	N/A
Speciogynine	Report Results	0.260	mg/mL	0.09	N/A
Speciociliatine	Report Results	0.580	mg/mL	0.09	N/A
Total Mitragyna Alkaloids	Report Results	3.03	mg/mL	0.09	N/A

Microbiological Examination

Method Code: T005

Tested: 03JAN2024 | 0820

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Total Aerobic Plate Count	10,000,000 CFU/gram	265	CFU/gram	10 CFU/gram	PASS
Total Yeast & Mold	100,000 CFU/gram	Not Detected	CFU/gram	10 CFU/gram	PASS
Total Coliforms	10,000 CFU/gram	Not Detected	CFU/gram	10 CFU/gram	PASS
Escherichia coli	Not Detected in 10 grams	Not Detected	N/A	1 CFU/10 grams	PASS
Staphylococcus aureus	Not Detected in 10 grams	Not Detected	N/A	1 CFU/10 grams	PASS
Salmonella	Not Detected in 25 grams	Not Detected	N/A	1 CFU/25 grams	PASS

Elemental Impurities (ICP-MS)

Method Code: T301

Tested: 05JAN2024 | 1013

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Arsenic	NMT 1.5	0.063	ug/g	0.049	PASS
Cadmium	NMT 0.5	<LOQ	ug/g	0.0098	PASS
Lead	NMT 0.5	0.11	ug/g	0.0098	PASS
Mercury	NMT 3.0	<LOQ	ug/g	0.0098	PASS

Additional Report Notes

T102 and T104 result, LOQ and unit converted from w/w% to mg/mL using a laboratory measured density of 1.022 g/mL. T301 performed by a registered outsourcing facility.

Revision History

- rev 00 - Initial release.
- rev 01 - Added T005 and T301 results.
- rev 02 - Added T201 results.

Abbreviations

ID: identification, **N/A:** not applicable, **LOQ:** limit of quantitation, **CFU:** colony forming units, **w/w%:** weight by weight percent, **mg:** milligrams, **g:** grams, **ug:** micrograms, **mL:** milliliters, **ND:** not detected, **<LOQ:** below limit of quantitation, **NMT:** no more than, **NLT:** no less than, **UHPLC:** ultra-high performance liquid chromatography, **GC:** gas chromatography, **DAD:** diode array detection/detector, **MS:** mass spectroscopy/spectrometer, **ICP:** inductively coupled plasma, **ISO:** International Organization for Standardization, **USP:** United States Pharmacopeia

Authorization

This report has been authorized for release from Cora Science by:

Signature:		Position:	Laboratory Director
Name:	Tyler West	Department:	Management
		Date:	09JAN2024